Amendments to the Drawings:

The attached sheet of drawing includes changes to FIG. 1. This sheet, which includes FIG. 1, replaces the original sheet including FIG. 1.

Attachment: Replacement Sheet

REMARKS

Interview Summary

On May 12, 2010, a telephonic interview was conducted between Marc S. Hanish, Reg. No. 42,626, Michael J. Ferrazano, Reg. No. 44,105, and Examiner Tan. The Examiner is kindly thanked for granting this interview. During the interview, the Examiner agreed to accept a new formal version of Figure 1, which had inadvertently omitted the shaded segments showing locations of interest that were shown in the original informal Figure 1.

Additionally, a proposed new set of claims was discussed. The differences between the claimed invention and the prior art references of Graham, Nielson, and Mohan were discussed. Specifically, the Examiner pointed to claims 7 and 8 of Graham as teaching that the user could navigate the document by sliding the annotation contour window in the annotation contour. Applicant pointed out, however, that claim 1 of Graham made clear that the annotation contour had two axes. Applicant agreed to amend the claims to make clear that the claimed invention had only a single axis and that the user is able to determine the relative importance of particular sections of the document merely by looking along that single axis (without needing to look along another axis). Thus, in the case of a vertical scroll bar, the user would be able to tell the relative importance of segments by only scanning up or down along the scroll bar, without needing to scan left or right (or any other direction). The user in Graham, however, would need to scan along both axes in order to determine importance.

Generally it was agreed that the references failed to teach or suggest displaying a relative importance for segments of a file. The remarks described below regarding the Mohan reference were discussed and the Examiner agreed that Mohan was not describing relative importance (or, at least not in the same way as the claimed invention). The Examiner additionally cited the '795 Graham reference, but Applicant pointed out that in that case the relevance was determined on a document by document basis, and not on the basis of individual segments or locations within a single document. Generally the Examiner agreed, but would not commit without seeing a revised version of the claims.

On May 17, 2010, a follow-up telephonic interview was conducted between Examiner Tan and Marc S. Hanish, Reg. No. 42,626. The Examiner is kindly thanked for granting this interview.

During the follow-up interview, the idea of a "single axis" was discussed for the scroll bar, but the Examiner indicated that such language might be ambiguous and instead suggested the inclusion of the limitation that the segments or location objects in the scroll bar were each the width of the scroll bar. The Examiner indicated that such a limitation would overcome the existing rejection. Applicant agreed to the amendment and to file an RCE.

Substantive Remarks

Claims 4-6, 8, 11-15, 23-34, 38-44, and 46-48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims have been cancelled, and thus it is respectfully submitted that these rejections are now moot.

Claims 4-6, 8, 11-15, 23, 26, 38-42, 44, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham (U.S. 7,228,492), in view of Nielsen (U.S. 6,339,437).

Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham (U.S. 7,228,492), in view of Nielsen (U.S. 6,339,437), and further in view of Eick (U.S. 5,644,692).

Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham (U.S. 7,228,492), in view of Nielsen (U.S. 6,339,437), and further in view of Graham et al. (U.S. 7,495,795).

Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham (U.S. 7,228,492), in view of Nielsen (U.S. 6,339,437), in view of Graham et al. (U.S. 7,495,795), and further in view of Mohan et al. (U.S. 6,970,881).

Claims 32-34 are rejected under 35 U.S.C. as being unpatentable over Graham (U.S. 7,228,492), in view of Nielsen (U.S. 6,339,437), in view of Graham et al. (U.S. 7,495,795), in view of Mohan et al. (U.S. 6,970,881), and further in view of Kline ("Principles and Practice of Structural Equation Modeling", December 2002).

Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham (U.S. 7,228,492), in view of Graham et al. (U.S. 7,495,795).

These claims have all been cancelled and replaced with new claims 49-69. However, the prior art of record will still be addressed.

The Examiner's primary rejections are based on the Graham and Nielsen references. Graham describes a graphical representation of the presence of one or more concepts of interest to the user in a file. This is crudely depicted in FIG. 5, reproduced below:

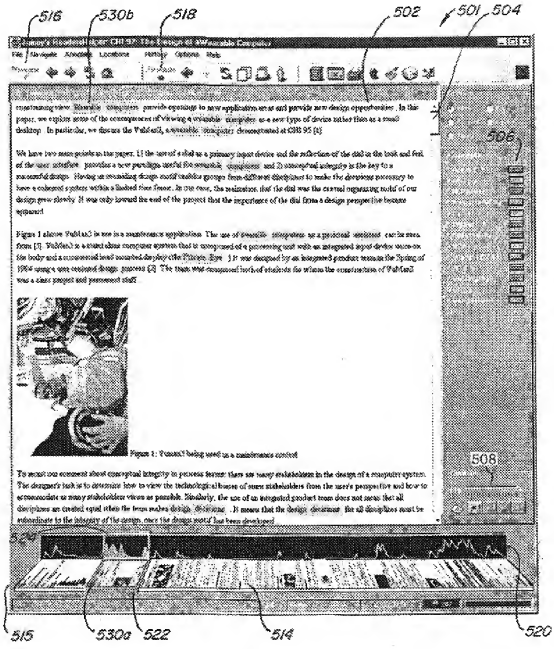

FIG. 5.

The graphical representation of locations of interest is depicted as an annotation contour 520 depicted alongside an elongated thumbnail image 514 of the file. Notably, this annotation contour

520 is separate and distinct from the scroll bar 504, which the user must use to scroll through the document. As such, Graham does not teach or suggest "segments" within the scroll bar itself that are the width of the scroll bar. This is not a minor distinction. Graham requires that the user focus on two different areas of the screen to navigate to locations of interest. Specifically, the user would have to navigate the file by moving the scroll thumb 504 while simultaneously viewing the annotation contour 520. Of course, in reality, this type of multiple focal points would result in imperfect navigation. Specifically, the user would almost certainly need to first look at the annotation contour 520 to get an idea of where to navigate, then focus on scroll thumb 504, moving the thumb to a guessed location of the scroll bar that would correspond to a location of interest. Then he would have to check the annotation contour again to determine how close he came to the exact spot he needed, then focus back on the scroll bar, and on and on making minor adjustments until the location is just right. This is in stark contrast to the presently claimed invention, wherein the presence of the segments within the scroll bar itself allows the user to simply move the scroll thumb directly to the exact location, without repeated adjustments and without diverting his attention from the scroll thumb.

Also notably, the annotation contour 520 does not display the relative importance of the locations of interest, but rather the absolute importance. Specifically, Graham describes basing the graph on a "persistence measure" that measures the number of "hits" in the document (see, e.g., col. 4, lines 14-23). As such, Graham does not teach or suggest "wherein the location objects are displayed using a display criteria that indicates the relative importance of the corresponding locations of interest." While at first this might appear to be a fine distinction, it is not. If the user in Graham wished to navigate to the "most important" section of the file, he would have to visually scan through the entire annotation contour and compare the peaks to each other to find the tallest peak. Thus, the system would rely on the user to determine the relative importance of the locations of interest, because the system would only provide an absolute measure of importance. The presently claimed invention, on the other hand, provides an indication of relative importance, so the user can instantly see that a particular section is the most important portion of the file, without needing to look anywhere other than the scroll bar. Indeed, the user would be able to navigate to the exact location of the document even if the scroll bar is the only thing visible on the screen (which can happen if the window is shrunk).

For these reasons, the Graham reference fails to teach or suggest the claimed invention.

The Nielson reference does not remedy these defects in Graham. Nielson describes altering the appearance of a scroll thumb as a user scrolls through a document to indicate the number of key words found in a particular section. As described in col. 6, lines 10-24: "[i]f the count of relevance markers is zero (400-N), a sad face is displayed in the scroll bar thumb (410). If the count is greater than zero (410-Y), a check is made to see if the count is greater than or equal to two (420). If it is not (420-N), the scroll bar thumb is changed to display a standard happy face (430). If the count is greater than or equal to two (420-Y), the scroll bar thumb will be changed to a very happy face (440). In a typical example the principal difference between a standard happy face and a very happy face resides in how big the smile is. In the implementation shown in FIG. 5, only three states are distinguishable corresponding to 0, 1 and more than 1 relevant terms for the location at which the scroll bar thumb is positioned. However, it is possible to have more than three symbols for distinguishing states."

Thus, while Nielson does alter the appearance of the scroll thumb as the user moves the scroll thumb, it does not alter the appearance of other objects in the scroll bar based on the relative importance of the corresponding sections of the file. Once again, this distinction may appear to be fine, but it is not. In order to find the most important section of the file, the user in Nielson would, just like the user in Graham, need to scroll through the entire document, looking for an area that, when navigated to, causes the scroll thumb to appear "most happy." Unlike in the presently claimed invention, the user in Graham cannot instantly see that a particular section of the document is the most important portion of the file and simply navigate to that section.

Likewise, the Mohan reference also does not remedy these defects in Graham. The Mohan reference is used by the Examiner to allegedly teach the "relative relevance" aspect of the invention, namely that relevances of locations are determined with reference to relevances of other locations in the document. Mohan, however, does not teach or suggest this type of relative relevance.

Mohan describes a solution in which unstructured objects, such as text documents, faxes, etc. are filtered and organized for easy searching for relevancy. Mohan goes on to describe how these unstructured objects are parsed for "seed concepts" and "key concepts", with seed concepts essentially being any subject found in the document and key concepts being the seed concepts appearing the most times in the document. The Examiner then cites Col. 18, lines 33-45, which states:

> The objects returned as results for the object concept based search are then scored according to the following algorithm. The scores for the individual key concepts that contributed to the search are averaged for each object returned. If the search was performed by using a combination of key concepts and seed concepts, the number of hits for the seed concepts are then divided by the total number of hits picked up for all seed concepts in the document to determine how much the seed concept actually contributed to the concept of the document. This figure is then added and averaged with the average score for the key concepts to arrive at a relevancy score for the object as pertains to this particular search.

First of all, this does not teach scoring the objects based on their relative importances. Rather, a relevancy figure is simply computed for a seed concept to determine how much the seed concept itself contributed to the document. For example, if a seed concept of a document was "baseball", this algorithm would determine how many times "baseball" appeared in the document and compare it to the total number of hits that all seed concepts (which might include, for example, "basketball", "football", "hockey", etc.) appeared in the document. It would then be able to tell how much "baseball" contributed to the document. For example, it might find that 60 of all hits on seed concepts were for "baseball", then a figure of 60% would be returned. This figure would then be compared with an average score for all key concepts to arrive at a relevancy score. This score would then tell you, for example, that "baseball" was more much more relevant in this document than the average seed concept, and thus one could conclude that this was an important seed concept to the document (and thus possibly a key concept of the document).

But this comparison is between the number of hits of a seed concept in one object compared to the number of hits of all seed concepts in that one object. It is not a comparison of the relevancy between locations. It is only a comparison of the relevancy between concepts. That is fundamentally different than the presently claimed invention, where the relevancy of locations are compared with one another.

Second of all, Mohan does not differentiate between locations within a document. Mohan gives a single relevancy score for each seed concept of the entire document (object). It does not drill down to another level of granularity and compare multiple locations within a single document, as does the presently claimed invention.

In light of this, Applicant respectfully submits that none of Graham, Nielson, and Mohan, nor their combination teach or suggest the elements of the independent claims. Specifically, with respect to claim 49, Applicant respectfully submits that the prior art fails to teach or suggest

"calculating a relevance for each of the locations of interest relative to each other" or "displaying location objects within the scroll bar, wherein the location objects are displayed using a display criteria that indicates the relative relevance of the corresponding locations of interest, such that, when the scroll thumb is manipulated to one of the location objects, the section of the file displayed in the content window changes to a section corresponding to the one of the location objects within the scroll bar."

With respect to claim 54, Applicant respectfully submits that the prior art fails to teach or suggest "calculating a relevance for each of the locations of interest relative to each other" or "displaying location objects within the scroll bar as horizontal lines, wherein the location objects are displayed using a display criteria that indicates the relative relevance of the corresponding locations of interest, such that, when the scroll thumb is manipulated to one of the location objects, the section of the file displayed in the content window changes to a section corresponding to the one of the location objects within the scroll bar."

With respect to claim 58, Applicant respectfully submits that the prior art fails to teach or suggest "a scroll bar, wherein the scroll bar contains a scroll thumb and a plurality of location objects, wherein the location objects correspond to locations of interest within the file and indicate relative relevance of the corresponding locations of interest through the use of varying display criteria for location objects based on relative relevance of the corresponding locations of interest."

With respect to claim 62, Applicant respectfully submits that the prior art fails to teach or suggest "a processor configured to...cause the display to display a scroll bar having a scroll thumb and a plurality of location objects, wherein each location object corresponds to an identified location of interest within the file."

With respect to claim 66, Applicant respectfully submits that the prior art fails to teach or suggest "executable computer code for identifying one or more scroll bar display criteria for changing the appearance of location objects within the scroll bar to designate the plurality of desired locations in the file, wherein the change of appearance of the location objects is based upon a relative importance of the desired locations with respect to each other" or "executable computer code for determining the relative importance of each one of the plurality of desired locations in the file with respect to each other."

Dependent claims 50-53, 55-57, 59-61, 63-65, and 67-69 are also patentably distinct from the cited references for at least the same reasons as those recited above for the independent claim,

upon which they ultimately depend. These dependent claims recite additional limitations that further distinguish these dependent claims from the cited references. For at least these reasons, claims 50-53, 55-57, 59-61, 63-65, and 67-69 are not anticipated or made obvious by the prior art and/or the official notice outlined in the Office Action.

Applicant also notes that original Figure 1 was inadvertently modified upon submission of the formal drawings on August 30th, 2004, and that the new Figure 1 may be confusing the examiner. Specifically, the new Figure 1 inadvertently omitted the horizontal segments in the scroll bar that were present in original Figure 1. Applicant hereby submits a revised formal version of Figure 1 that displays the horizontal segments that were present in the original Figure 1.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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